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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,190

03/29/2004

Hitoshi Hagimori

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EXAMINER

GREECE, JAMES R

ART UNIT

PAPER NUMBER

2873

MAIL DATE

DELIVERY MODE

08/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/812,190

Applicant(s)

HAGIMORI ET AL.

Examiner

James R. Greece

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 and 22 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/17/2006 & 3/29/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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Detailed Action

Applicant cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Status of the Application

Claims 1-11 are pending in this application

If the applicant is aware of any prior art or any other co-pending application not already of record, he/she is reminded of his/her duty under 37 CFR 1.56 to disclose the same.

Drawings

There are no objections to the applicant's drawings at this time.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Itoh (USPAT 5,274,504).

In regard to claim 1, Itoh discloses:

A first lens unit disposed on a most object side and having a negative optical power; a second lens unit having a positive optical power; (See Itoh figure 1) and a third lens unit including a most image side lens unit having at least a positive lens element and a negative lens element, (see Itoh figure 1) wherein the following condition is satisfied: $3 < |f_l/f_w|$ where f_l is a

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focal length of the most image side lens unit, and fw is a focal length of the zoom lens system in a shortest focal length condition. (See Itoh Table 1)

In regard to claim 3, Itoh discloses:

The most image side lens unit has a negative optical power. (see Itoh figure 1)

In regard to claim 4, Itoh discloses:

The most image side lens unit includes at least one aspherical surface. (see Itoh figure 1)

In regard to claim 6, Itoh discloses:

The first lens unit includes only one negative lens element. (See Itoh Abstract lines 1-3)

In regard to claim 7, Itoh discloses:

The first lens unit is moved so as to draw a locus convex to the image side in zooming from the shortest focal length condition to the longest focal length condition. (Abstract, Itoh)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claim 1-2, 5, 8, 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno (USPAT 6,040,949).

In regard to claim 1, Ohno discloses:

a first lens unit disposed on a most object side and having a negative optical power; a second lens unit having a positive optical power; and a third lens unit including a most image side lens unit having at least a positive lens element and a negative lens element, (See Ohno figure 1 groups 1-3)

In regard to claim 1, Ohno does not explicitly disclose:

Wherein the following condition is satisfied: $3 < |f_l/f_w|$ where f_l is a focal length of the most image side lens unit, and f_w is a focal length of the zoom lens system in a shortest focal length condition.

However, It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the following conditional statement $3 < |f_l/f_w|$ as a design parameter, since the claimed range and the prior art range of Ohno are close enough that one having ordinary skill in the art would have expected them to have the same properties. For instance the prior art teaches a range that includes a value of 2.99999999999999999999... and the applicant teaches a range that includes $(3 + 1.0 \times 10^{-100})$ no substantial difference in properties or function of the device between these similar values.

In regard to claim 2, Ohno further discloses:

Wherein the most image side lens unit has a positive optical power. (See Ohno figure 1)

In regard to claim 5, Ohno further discloses:

Wherein the focusing is performed by moving on the optical axis a positive single lens element disposed in a position on the image side of a diaphragm and not included in the most image side lens unit. (See figure 1 Ohno)

In regard to claim 8, Ohno further discloses:

wherein the zoom lens systems satisfy the following condition: $v_1 > 45$ where v_1 is the Abbe number of the single negative lens element constituting the first lens unit (See Ohno table 1)

In regard to claim 10, Ohno discloses:

An electric image sensor converting an optical image formed by the zoom lens system, into electric image data, (Ohno teaches that zoom lens is used in concert with a CCD) and a zoom lens system, said zoom lens system comprising, a first lens unit disposed on a most object side and having a negative optical power; a second lens unit having a positive optical power; and a third lens unit including a most image side lens unit having at least a positive lens element and a negative lens element, (See Ohno figure 1)

In regard to claim 10, Ohno does not explicitly disclose:

Wherein the following condition is satisfied: $3 < |f_l/f_w|$ where f_l is a focal length of the most image side lens unit, and f_w is a focal length of the zoom lens system in a shortest focal length condition.

However, It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the following conditional statement $3 < |f_l/f_w|$ as a design parameter, since the claimed range and the prior art range of Ohno are close enough that one

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having ordinary skill in the art would have expected them to have the same properties. For instance the prior art teaches a range that includes a value of 2.999999999999999999... and the applicant teaches a range that includes $(3 + 1.0 \times 10^{-100})$ no substantial difference in properties or function of the device between these similar values.

In regard to claim 11, Ohno discloses:

An electric image sensor converting an optical image formed by the zoom lens system, into electric image data, (Ohno teaches that zoom lens is used in concert with a CCD in a digital/electronic camera) and a zoom lens system, said zoom lens system comprising, a first lens unit disposed on a most object side and having a negative optical power; a second lens unit having a positive optical power; and a third lens unit including a most image side lens unit having at least a positive lens element and a negative lens element, (See Ohno figure 1)

In regard to claim 11, Ohno does not explicitly disclose:

Wherein the following condition is satisfied: $3 < |f_l/f_w|$ where f_l is a focal length of the most image side lens unit, and f_w is a focal length of the zoom lens system in a shortest focal length condition.

However, It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the following conditional statement $3 < |f_l/f_w|$ as a design parameter, since the claimed range and the prior art range of Ohno are close enough that one having ordinary skill in the art would have expected them to have the same properties. For instance the prior art teaches a range that includes a value of 2.999999999999999999... and

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the applicant teaches a range that includes $(3 + 1.0 \times 10^{-100})$ no substantial difference in properties or function of the device between these similar values.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The condition fw/ft does not fall in the range of 2.3 to 5.5 for any of the disclosed embodiments.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear how any of the embodiments fall within the claimed range of 2.3 to 5.5, since the claimed ratio fw/ft yields a value of approximately 0.34 for Embodiment 1, for example.

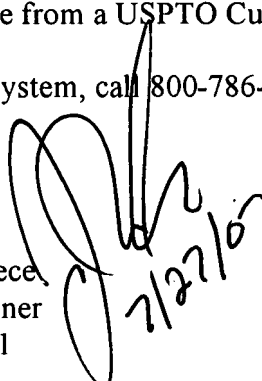
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Greece whose telephone number is 571-272-3711. The examiner can normally be reached on M-Th 7:30-6.

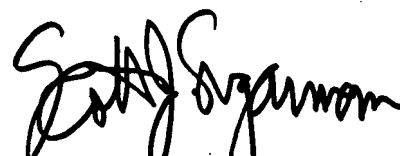
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James R. Greece
Patent Examiner
571-272-3711



7/27/07



Scott J. Sugarman
Primary Examiner